

Response under 37 CFR 1.116
Mitsuzou NOGAMI et al.

U.S. Patent Application Serial No. 09/622,615
Attorney Docket No. 000774

RECEIVED
MAR 27 2003
GROUP 1700

REMARKS

Claims 1-5, 11-18, 25 and 26 are pending in this application. Claims 1-5, 11-18, 25 and 26 are rejected. Claims 6-10 and 19-24 are canceled herein without prejudice or disclaimer.

Claims 1-3, 5 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. '636.

Reconsideration of the rejection of claims 1-3, 5 and 26 is respectfully requested. In requesting reconsideration, Applicants maintain their argument that Ohta et al. does not disclose a sintered nickel electrode as recited in the present claims.

Applicants first note that the Examiner has commented on the amendment of October 15, 2002, to the preambles of the claims to recite "A sintered nickel electrode ...", stating that this amended the scope of the claims (page 3, line 5, of the final Office action). The Examiner now indicates that: "While Ohta does not explicitly teach that an electrode having a sintered substrate is definitive of a sintered electrode, the skilled artisan would find this configuration obvious in view of the active material being impregnated into a sintered substrate, the resulting composite structure thereby defining a sintered electrode."

Applicants, however, wish to comment that although the claims were amended to recite "a sintered nickel electrode", this amendment should not be considered to change the scope of the claims, since the electrode is a "sintered nickel electrode" by virtue of the recitation of the body of the claims, as discussed below.

In the Amendment of October 15, 2002, Applicants argued that the invention of Ohta et al. '636 using an active material paste is not a sintered nickel electrode. The Examiner now states that "Ohta does not teach away from a sintered nickel electrode in that the substrate is specifically disclosed to be a sintered nickel porous substrate, *inter alia*. (col. 5 line 58)."

In response, Applicants note the definitions of "sintered nickel electrode" and "non-sintered nickel electrode" in the present specification, which define these terms for the purpose of the present application:

1) **The sintered nickel electrode:** "the sintered nickel electrode employs a porous sintered nickel substrate obtained by sintering and is produced by **chemically impregnating the porous sintered nickel substrate** with a salt of the active material." (page 2, lines 12-16, emphasis added)

In other words, a 'substrate' is a part of an 'electrode', and a 'substrate' alone cannot be an 'electrode'.

2) **The non-sintered nickel electrode:** "The non-sintered nickel electrode is produced by **directly applying an active material paste** mainly containing nickel hydroxide to a conductive porous body such as foamed nickel." (page 2, lines 6-9, emphasis added).

That is, as defined in the present specification, the difference between the sintered nickel electrode and the non-sintered nickel electrode is based on the method of application of the active material, not on the use of the porous sintered nickel substrate.

In other words, when an electrode is not produced by chemically impregnating the porous nickel substrate with a salt of the active material, the resultant electrode is not a sintered nickel electrode, even if the electrode employs a sintered nickel substrate. The resultant electrode, for purposes of the present application, would be a "non-sintered nickel electrode" employing a

“sintered substrate”. In the present application, the terms “substrate” and an “electrode” should be strictly distinguished.

The Examiner points out that “a sintered nickel substrate” is shown in col. 5, line 58, and col. 1, lines 48-52, of Ohta ‘636. However, here “a sintered nickel substrate” is shown together with “a foamed nickel porous substrate” and the like. In other words, “a sintered nickel substrate” corresponds to “such as foamed nickel” shown in the definition of the non-sintered nickel electrode of the present application. In addition, Ohta ‘636 shows “a sintered nickel substrate” in col. 1, line 28; however, this part of the reference only discloses background of the invention. In addition, col. 4, lines 48-50, mentions that “The present invention is directed to a “paste-type nickel positive electrode”. Therefore, the electrode of Ohta ‘636 is not a sintered nickel electrode.

Finally, in response to Applicants’ arguments in regard to the recited hydroxides being only suggested by the reference, the Examiner refers to $\text{Sr}(\text{OH})_2$ in Ohta et al. ‘636’s Example 2. However, Applicants have distinctly discussed Example 2 on page 8, paragraph 3, of the Amendment of October 15, 2002, noting that in this Example, Ohta et al. ‘636 does not have a separate coating layer. Therefore, modification of this example of Ohta et al ‘636 to produce the recitation of the present claims would require a modification to have the recited coating layer, such a further modification not being suggested by the reference. Applicants therefore maintain their arguments regarding the recited hydroxides.

Applicants therefore submit that claims 1-3, 5 and 26 are novel and non-obvious over Ohta et al. ‘636, and reconsideration of the rejection is again respectfully requested.

Claims 1-5, 11-18, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. '726 in view of Ovshinsky et al. (U.S. Patent No. 5,344,728).

Reconsideration of the rejection is respectfully requested.

The Examiner had previously rejected these claims under 102(e) over Ohta et al. '726 (page 5 of the previous Office action). This rejection cites a new reference, Ovshinsky et al. '728. The Examiner states that "The rejection is maintained ...", but Applicants respectfully note that the rejection appears to be stated as a new rejection with new grounds.

The Examiner states that the reference of Ohta '726 "teaches sintered nickel substrates as conventional in the art as incorporated by reference to its prior art discussions" Applicants note that the term "sintered nickel porous substrate" in the reference only in column 1, line 29, and column 1, line 39, in the background of the invention. (The term "sintered nickel substrate" itself does not appear.) However, this disclosure in Ohta '726 involves a "sintered nickel porous substrate" together with a porous foamed nickel. In other words, the "sintered nickel porous substrate" corresponds to "such as foamed nickel" shown in the definition of the non-sintered nickel electrode of the present invention, as in the case of Ohta '636. Therefore, the electrode of Ohta '726 is not a sintered nickel electrode as defined in the present specification.

Therefore, the present invention is distinguished over Ohta.'726.

Ovshinsky et al. is cited "to not distinguish between sintered substrates and sintered electrodes, that is, a sintered nickel substrate is one and the same as a sintered nickel electrode." (page 4 of Office action, at bottom). Specifically, the Examiner refers to column 11, line 51, to

column 12, line 12, of the reference. However, these lines discuss “the trend toward foamed metal substrate electrodes away from sintered electrodes” and, in fact, **do** appear to distinguish between two kinds of electrodes. Therefore, Applicants respectfully disagree with the Examiner regarding the teachings of Ovshinsky and respectfully reiterate their arguments that, as defined in the present invention, the sintered nickel substrate does not in itself make a “sintered nickel electrode”.

Moreover, Applicants cannot find any suggestion in Ovshinsky to modify Ohta et al. ‘726’s foamed nickel substrate as supporting member (Ohta et al. ‘726, column 13, line 14) with a sintered nickel substrate. Rather, Ovshinsky’s comment regarding the trend toward foamed metal substrate electrodes would appear to suggest the opposite. *No.*

In addition, the proposed combination of Ohta’s foamed nickel substrate substituted by a sintered nickel substrate lacks a further element of the present claims. As Applicants noted in the Amendment of October 15, 2002, Ohta et al. ‘726 does not have a coating layer on the surface of an active material. *outside scope*

Applicants respectfully submit that claims 1-5, 11-18, 25 and 26 are novel and non-obvious over Ohta et al. ‘726 and Ovshinsky et al. (U.S. Patent No. 5,344,728), taken separately or in combination, and reconsideration of the rejection is respectfully requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Response under 37 CFR 1.116
Mitsuzou NOGAMI et al.

U.S. Patent Application Serial No. 09/622,615
Attorney Docket No. 000774

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP



Daniel A. Geselowitz, Ph.D.
Agent for Applicants
Reg. No. 42,573

DAG/plb

Atty. Docket No. **000774**
Suite 1000, 1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE

H:\FLOATERS\DAG\Amendments\000774 response 1.116 3-26-03